S-E-C-R-E-T

CODIB-M-84
22 December 1966

U N I T E D S T A T E S I N T E L L I G E N C E B O A R D

COMMITTEE ON DOCUMENTATION

Minutes of the Eighty-Fourth Meeting, 14 December 1966

Members or Their Representatives Present

25X1

Chairman - [redacted] CIA
CIA -
DIA -
STATE - Dr. Bruce H. Allen
NAVY - Capt. Wendell J. Furnas
ARMY - Lt. Col. George A. Parsons
USAF - Col. Chester H. Morneau
25X1 DDR&E - [redacted]
AEC - Not represented
FBI - Not represented
NSA - Not represented
25X1 Secretary - [redacted] [DIA]

Others Present

25X1 CIA - [redacted]
Mr. Charles A. Briggs
25X1 [redacted]

CIA/NIPE -
NPIC -
DIA -

NSA -

*Present for part of the meeting.

25X1 NSA - [redacted]

ARMY - Mr. John C. Wilson

25X1 CSS - [redacted] CIA DIA

1. Approval of Minutes. Minutes of Meeting 83 (CODIB-M-83, 2 December 1966) were approved as distributed.

2. Computers in the Soviet Economy. [redacted] 25X1 CIA/ORR, presented an unclassified briefing on this subject. A complete text is on file in the CODIB Support Staff. Highlights are as follows: The USSR lags badly behind most industrial nations in the use of computers. The US has 10 times as many computers in use as the USSR (35,000 in the US against 3,500 in the USSR). The major reason for the Soviet lag is that most of the USSR computers are used in military and scientific work and the USSR has only scratched the surface in economics applications. Fewer than 500 outmoded computers are used in the Soviet economic data system, whereas there are about 20,000 in use in the US economic system. Soviet planners hope to replace their present cumbersome methods (of collecting, compiling, and analyzing economic data) with a national network of computers. They face major problems in achieving this goal. They must install several thousand modern computers, train thousands of computer specialists, develop an elaborate communication system, revise their economic reporting system, and educate enterprise managers in the application of computers. The URAL-16 is typical of the Soviet computers used in the economy. It is capable of 80,000 instructions per second with a storage capacity of 130,000 words. Their best machine is the BESM-6, capable of one million instructions per second, but was designed for scientific rather than economic uses. The Soviet Five Year Plan for 1966-70 gives major emphasis to increasing production of computers able to handle large amounts of economic data. At the same time, Soviet economists are pushing the development of mathematical models of the economy. It will be well into the 1970's before the national network of computers can begin to relieve the burden of paper work and to help solve problems for plant managers.

3. COINS Status Briefings. In response to agreement at the CODIB meeting on 10 November (para 12, CODIB-M-82, 17 November 1966) for a full CODIB session devoted to COINS, five briefings were presented as follows:

Background and problem areas - [redacted] CODIB Support Staff 25X1

Communications Switch - [redacted] DIA 25X1

25X1 Airfield Files - [redacted] DIA

Simulation of Communications Switch - [redacted] NSA 25X1

Biographics Files - [redacted] NSA 25X1

25X1 COINS Evaluation - [redacted] DIA

25X1 The complete text of [redacted] briefing and significant highlights of the other briefings are given in the attachment hereto. Due to a malfunction of the tape recorder, the complete texts of the other briefings are not available.

4. Chairman's Response. The Chairman thanked the briefers for their informative presentations. He observed that CODIB had intentionally not given specific terms of reference to the COINS Working Group so as not to prescribe its efforts too closely. Indeed, one option was to permit NSA to deal bilaterally with each agency without USIB participation directly or through CODIB. With respect to COINS II, he noted that CODIB had expressed the feeling previously that it was premature to plan COINS II in detail and to seek approval of extensive funding until COINS I is operational and has been evaluated. The CODIB members have indicated that resources will not be forthcoming until it is demonstrated that COINS I is a useful system. He then asked [redacted] Chairman of the COINS Working Group, if there was anything he needs now or later from CODIB in order to keep progressing toward the implementation of COINS I. The response was negative. 25X1

5. Amount of Detail Reported in CODIB Minutes. The Chairman complimented the Secretariat on the detailed minutes of previous meetings but wondered whether such detail was helpful to the CODIB members. Several members stated that they appreciated the detailed minutes and found them very useful.

6. Revision to DCID 1/7. The Chairman noted that final USIB action on the CODIB-proposed revisions to DCID 1/7 (USIB-D-5.1/6, 23 November 1966; CODIB-D-77/3, 21 November 1966) awaited signature of DCI.

7. Status of Task Team III Report. The Chairman noted that a DCI statement of nonconcurrence on Recommendation 6 in the CODIB Report on Task Team III had been sent to USIB members (Memorandum for Holders of USIB-D-39.7/19, 6 December 1966). [Subsequent to this CODIB meeting the USIB Secretariat reported that on 12 December 1966 it was recorded that the USIB approved CODIB Recommendations 1 through 5 but did not approve Recommendation 6.]

8. National Indications Center (NIC) Request to Join COINS Network. The Chairman noted a letter dated 6 December 1966 from the Director NIC requesting that the NIC be considered for participation in COINS I. He proposed CODIB approval of the request. [redacted] wondered what files proposed for COINS could possibly be of interest to NIC. [redacted] indicated that he had had preliminary discussion with representatives of NIC and that they had indicated a need for files containing some of the same kind of information contained in the proposed COINS files. The NIC request was then approved, and the Chairman stated that he would notify the Director NIC suggesting that he contact [redacted] of NSA to firm up the nature and extent of NIC participation and [redacted] of DIA for assistance in obtaining the required resources. 25X1 25X1 25X1 25X1 25X1 25X1

[redacted]

10. Meeting of the Society for General Systems Research. The Chairman distributed copies of the program of the twelfth annual meeting of the Society to be held at the Washington Hilton, December 26-30, and suggested that CODIB should give more attention to this type of meeting.

11. Future CODIB Meetings. It was agreed that insofar as feasible future CODIB meetings will be held on Tuesdays at 10:00 A.M. It was agreed to hold the next meeting on Tuesday, 10 January 1967. Main Agenda items will be CODIB reports to USIB on Training and Biographics.

[redacted] 25X1

Secretary

Attachment: A/S

S-E-C-R-E-T

CODIB-M-83
Attachment

COINS BRIEFING FOR CODIB

25X1 [redacted] 14 December 1966)

I. INTRODUCTORY NOTE

A. This briefing is a direct response to CODIB's request of 3 November 1966 for a session devoted to a discussion of COINS, its status and its problems, in order to find out clearly where we are now, what it is that we are implementing, and to dispel existing confusion between COINS I and COINS II. (Chart 1)

B. In the time available, it is impossible to cover all the details associated with the COINS experiment because too much has happened during the last sixteen months. The best I can hope to do is to present a selection of information which will form a coherent picture of COINS at a predetermined level of abstraction. Those who will brief
25X1 after me, [redacted] and the chairmen of his working panels, will provide information at a more detailed level in some specific areas of COINS development.

C. During this briefing I shall refer to [redacted] group as the COINS Committee. CODIB established the group as the CODIB Working on PFIAB Recommendation Two. The shorter title has the obvious advantage of brevity. 25X1

II. ORIGIN

A. PFIAB Recommendation No. 2 of 15 June 1965.

1. The COINS experiment was initiated by Recommendation No. 2 of 15 June 1965 by the President's Foreign Intelligence Advisory Board (PFIAB). The recommendation was rooted, at least in part, in a briefing NSA gave to the Communications Panel of the PFIAB regarding the NSA
25X1 [redacted] TIPS project. Next, the recommendation appears to reflect some of the ideas contained in various Government reports on the management and uses of ADP in the Federal Government. Finally, the recommendation seems to be based on the clear, recognized need for improvements in the intelligence community's capabilities for handling its information base.

2. The PFIAB recommendation called for an expansion of the NSA TIPS project to include participation by other members of the intelligence community as a first step toward inter-agency and inter-building information handling. The PFIAB stated that there should be a capability for extensive handling of the Russian biography problem by the summer of 1966, and a capability to exchange outputs from various sources by the summer of 1967. (Chart 2)

B. PFIAB Guidance.

1. The PFIAB provided an explanatory statement immediately following its recommendation. For our purposes here we can view this statement as the PFIAB guidance for carrying-out the COINS experiment. This guidance encompassed the following points: (Chart 3)

a. Experimental trials are needed to come to grips with a wide variety of problems involved in intelligence information handling, including

Security Compartmentation
Encryption of communications between the computer/information base and user locations
Other problems

b. It may be necessary to expand the scope of the information in TIPS: however, this should be done with caution as to the total amount of material thus added.

c. The community's intention should be to establish a system that will in fact be used by workers in at least a few agencies as a better way to meet day-to-day tasks.

d. The system should be regarded as experimental and there should be no attempt to insure that in its experimental form its operations can be economically justified.

C. PFIAB Philosophy.

1. The PFIAB expressed its views on the community's information handling problems in some ten or twelve paragraphs preceeding the actual recommendation and the guidance statement I have just covered. We might view these paragraphs as constituting the PFIAB philosophy regarding the uses of ADP in handling intelligence information. I have selected some of those statements as being particularly germane to this presentation on COINS. (Chart 4)

a. Information handling methods occupy a pervasive position in the whole administrative frame-work of the intelligence community. They are a determining factor in the effectiveness of the intelligence system in meeting national security needs at policy and command levels of the Government.

b. Systems problems of intelligence information access will continue to be of the most difficult type, heightening the importance of great improvements in the depth of understanding and of skills in tackling a wide variety of problems which confront all levels of Government personnel concerned with access to the national intelligence base.

c. Additional actions must go forward concurrently with those already approved by USIB. These additional actions provide the only foreseeable means of extending to the massive operations of the intelligence community the advantages of high-speed machine processing in a way which has already been applied in such specific areas as cryptanalysis. Unless such actions are undertaken, there is danger that the efficiency of production and dissemination of intelligence will decline progressively, and that already high costs will climb so steeply as to jeopardize national support of the broad intelligence effort.

d. The need for new actions is not regarded as a direct consequence of the rise of the electronic computer. The need is more deeply the result of growth of the intelligence community effort and the greater growth of the information which it must handle.

e. Mechanized and automated means of access to many sorts of intelligence cannot meet simultaneously the requirements for high recall and the rigid requirements as to relevance. For some time to come, the mode of gaining access to intelligence information will be through combined machine-human systems in which the machine will retrieve stored information in order that its relevance may be established by human examination. It is this combined machine-human factor which generates systems problems of great difficulty and dimension.

SPECIAL NOTE. It should be noted here that CODIB has not provided to the COINS effort any guidance and philosophy corresponding to that provided by the PFIAB. CODIB has had COINS as a major topic of discussion at ten of its meetings during the period August 1965 - December 1966. Although individual members have expressed doubts, reservations and concern about COINS, CODIB has not issued any substantive instructions to the COINS Committee. CODIB has not issued terms of reference for COINS as it did for some nine or so Task Teams that have operated over the past couple of years. The closest CODIB came to providing guidance was its rejection of the COINS II portion of the Implementation Plan of May 1966. Basically, therefore, COINS has been and still is largely the result of bi-lateral efforts coordinated by the COINS Committee and its five panels without direct intervention by CODIB.

It should also be noted that there is no evidence of any sustained, substantive overt attempt to establish communication between CODIB, the intelligence community and the PFIAB in order to explore the real meaning of the PFIAB recommendation and to report progress. This is difficult to comprehend because COINS appears to be the culmination of many tough community information handling problems, making the COINS experiment one of the most important yet undertaken.

III. WHAT IS COINS

A. Introductory Note.

For the next few minutes I will address the question WHAT IS IT WE ARE IMPLEMENTING? One cannot adequately answer the question of what COINS is now without first considering what COINS started out to be and how much, if any, the original concept has changed over the months. This discussion will be introduced, therefore, by a brief reconstruction of the early approaches to the COINS experiment.

B. Initial System Approaches.

1. At its first meeting in mid-September 1965, the COINS Committee discussed its ultimate goal as being the "preparation of guidelines for an intelligence network of self-scheduling remote-access computer systems communicating with one another via secure communications, rather than a single computer system involving a set of centralized information files". The COINS Committee acknowledged that the ingelligence network of self-scheduling computers was a long range goal and that "some of the managerial problems involved in remote interrogation of shared information files could be faced in the near future by using the TIPS PILOT system at NSA to interrogate a small sub-set of intelligence files of community interest". We can see here in the beginning a definite two-phased approach to the problem which is not at all unlike the approach indicated by the PFIAB. In this approach the initial effort would be to experiment and gain knowledge through using the NSA TIPS PILOT with a small sub-set of specially selected intelligence files and a number of remote interrogation stations. This effort would be geared to establishing a knowledge and experience base on which to build a follow-on system of considerably more sophistication.

2. This approach continued for about a month at which time the DIA and CIA members of the COINS Committee expressed concern that the COINS effort would not work effectively if the DIA and CIA outstations were located in the NSA Operations Building. Such an arrangement would be unnatural for the analyst user and would not be responsive to that portion of the PFIAB recommendation concerned with the inter-building handling of intelligence information. An apparent solution to the problem would have been to locate the remote interrogation stations in the headquarters building of each participating agency and connect them to NSA TIPS PILOT via secure data links. This approach was nullified when NSA announced its policy that all COINS outstations tied to TIPS PILOT would have to be physically located in the NSA Operations Building. NSA stated that this constraint was necessary to safeguard the sensitive information in TIPS which had nothing to do with COINS but which could not be effectively isolated from COINS. This NSA policy precipitated a search for an alternate approach to the initial COINS effort. Such an

approach was found when the DIA member of the COINS Committee suggested
25X1 that the DIA [redacted] remote access computer system be interfaced with COINS PILOT (or COINS I as the effort was later called).

C. The Hardware System.

This chart (Chart 5) depicts schematically COINS I as it has emerged from the search for an alternative to locating all COINS outstations in the NSA Operations Building and conducting experiments using TIPS as the basis for design of the ultimate "intelligence network of self-scheduling computer systems". There are a few important points to observe on this chart. The first is the obvious fact that COINS I is not simply an expansion of the NSA TIPS; TIPS is merely the internal vehicle through which NSA ties into the COINS network and, in this regard, appears to produce no greater impact on the overall COINS I experiment than does the CIA or DIA local computer systems. Related to this is the second point that the computer systems in COINS I vary greatly, i.e.,
25X1 [redacted] The third point to note is that the COINS hardware system is dominated by the information transfer sub-system, i.e., the
25X1 [redacted]

D. The COINS Files.

This chart (Chart 6) lists the intelligence information files which have been conditionally nominated for use in the COINS I experiment. The list is shown here only to complete the picture of what COINS is; the files will be discussed in detail later when we talk about the status of COINS and some of the problems associated with making COINS a meaningful experiment.

E. System Operation.

1. I have included a brief section on system operation to round-out the description of what COINS is, and also to provide a lead-in
25X1 to [redacted] more detailed description of the store and forward communications switch now being built at DIA. I will discuss three facets of COINS operation: (Chart 7)

The User Analyst
The Local Computer System
The Information Transfer System

2. User Analyst Interrogation Operations.

a. COINS I users will be limited to file-oriented interrogations (as opposed to subject-oriented interrogations). This procedure requires that the analyst have a detailed knowledge of the files he intends to interrogate. For each file he will use, he must know the following:

Exact name of the file
Name of the fields in the file
Data elements (how information is recorded into the file)

In addition, the user analyst must know how to format his request so that it will be accepted in the system and processed against the appropriate file. In this regard, the user can use either a specific or canned interrogation or a query in a users language.

b. When using a specific or canned interrogation the analyst is simply using an interrogation which the owner of a file has already developed for his own operations using the file. 25X1

If the specific or canned interrogations available for each COINS file do not satisfy the needs of a user in another agency, the user has two options:

(1) Write a specific interrogation, using the language of the agency owning the file, and have the interrogation included in the program library of the retrieval system in the agency having the file to be interrogated.

(2) Use whatever specific or canned interrogations are available and write a specific program for his own local computer system to merge and reformat the results received from other computer systems.

c. The user analyst has the job, then, of preparing the query in the appropriate format and entering it into his remote console. In COINS I, this requires that the analyst have a detailed knowledge of both the files and the procedures for retrieving information from those files.

3. The Local Computer System.

a. The computer systems in COINS I serve two basic roles. First, each of the computers has as its primary role the support of the owning agency in areas unrelated to COINS. Second, each of the computers serves the secondary role of processing COINS interrogations and responses. When operating in the secondary COINS role, the local computer performs three basic functions:

(1) It receives and processes interrogations from its attached remote stations and prepares them for input to the information transfer sub-system of the COINS network.

(2) It receives responses to interrogations and routes them to the requesting analyst.

(3) It receives and processes COINS interrogations from other agencies.

25X1 b. When operating in the first mode, i.e., receiving and processing interrogations from its attached remote stations, the local computer system will perform one of two types of operations depending upon its location.

[redacted]

c. When processing responses to its own interrogations, the local computer system will either pass the responses directly back to the requestor's station as soon as they are received, or input them to a special program for further processing (merging, summarizing, formatting) before forwarding the responses to the requestor.

d. When receiving and processing interrogations from other agencies, the local computer system will perform four basic functions:

(1) receive incoming interrogations and send back receipt messages

(2) validate each interrogation by determining that the specific or canned interrogation and the appropriate data files are available and that the requesting agency is authorized to use the programs and files

(3) respond with service messages if the interrogation is in error or unacceptable

(4) process the interrogation against the appropriate file, and prepare and forward a proper response to the requesting agency.

4. The Information Transfer System.

a. The information transfer system is a major portion of the COINS experiment as it is now constituted. The heart of the transfer

system is the store and forward communications switch built around the [redacted] computer. [redacted] will cover the details of the switch later. It is sufficient for our purpose to note only that the switch is the unit which drives the system and maintains order within it. 25X1

b. It should be noted that the total transfer system (charts 5 and 7) is comprised of a relatively large number of individual units which must all function properly to insure that information can be exchanged securely within COINS. High reliability in such a network is difficult to achieve. Consider for a moment the way system reliability is calculated. Assume we have a network of three individual units (U_1, U_2, and U_3) in series, each with its own reliability factor (R_1, R_2, and R_3) and each equally dependent on the other for total system performance. The reliability of the total three-unit system is not that of the individual units but rather is the product of $R_1 \times R_2 \times R_3$. If $R_1 = .9$, $R_2 = .9$ and $R_3 = .9$, the reliability of the total system would be .729.

c. The factors discussed above make the COINS information transfer something more difficult than simply connecting together a number of black boxes and throwing an actuating switch.

IV. WHAT IS THE STATUS OF COINS

A. Introductory Note.

Although testing of the COINS communications link between DIA and NSA is scheduled to get underway on 21 December 1966, the entire COINS network will not be ready to commence operation until at least next summer if the present rate of development continues to hold. In his last report to CODIB, the Chairman of the COINS Committee said the operational target date might be as late as 1 July 1967. Subsequent conversations with personnel working on COINS have indicated that the operational date may have slipped beyond 1 July.

B. Overall Status.

This chart (Chart 8) is designed to show the overall status of COINS by component and participating agency. The chart is not completely satisfactory because it is difficult to assign uniform, positive values to all the components. Almost every block shown on the chart warrants some degree of elaboration to establish precise status. For example, I have shown the DIA non-COINS software as "basically ready"; in actuality, the DIA [redacted] system is operational but there are still some parts of the system to be brought on-line. 25X1

1. Computer Hardware (Local Computer Systems) is ready.

25X1 [redacted]

2. Non-COINS Software (that software which each agency would develop for its own local computer system even if there was no COINS experiment) is basically ready in CIA and DIA. NSA's software for the upgraded [redacted] TIPS is not ready because of what [redacted] described in his last status briefing as delays in solving the multi-level security compartmentation problem. NPIC's status is about the same as NSA's because NPIC will use at least some of the NSA software. 25X1 25X1

3. COINS Software (that software to be developed by each agency specifically for participation in COINS) is basically not ready. In the case of NSA, the COINS software is dependent upon the [redacted] TIPS software and will necessarily lag development here. All participants have done some design and coding of COINS software and are into early testing. 25X1

4. The COINS files are shown as not ready. This means that the files are not ready for immediate use if one wanted to commence operation today. The files are largely in machineable form but still have to be worked on to make them suitable for COINS use. It has been estimated that approximately one month of work would be required to get some of the files in shape for actual COINS usage.

5. The Remote Terminals are basically ready. In the case of State Department, approval for acquisition has been given and procurement is all that remains to be done.

6. Crypto Devices and MODEMS are basically ready.

7. The Communications Switch Hardware is installed.

8. The Communications Switch Software has been largely designed and is being developed by DIA, NSA and [redacted] 25X1

9. COINS Training is shown as not ready because the various users at each agency have not been trained in the files and interrogation procedures of the participants. This training is being scheduled and will be completed within the framework of the summer-1967 operational target date.

10. COINS Evaluation planning is not ready. The technical evaluation plan is in an advanced state; however, the operational evaluation plan remains an unsolved, difficult problem.

11. COINS Objectives are still a major problem and will be discussed later in the briefing.

C. The COINS Files.

1. The selection of suitable files for the COINS experiment has been (and still is) a most difficult problem. The file selection problem can be approached, at least theoretically, in two ways:

a. Define the problem area(s) against which COINS is to be tested and, then, select or develop the files required for effective treatment of the problem.

b. Use whatever files are available and, then, manufacture a problem area where the files can be used.

2. The first approach is obviously the more logical; however, the second approach has some appealing aspects under conditions of limited time and resources for building new files. As COIDB reported to USIB in September 1966--"the real difficulty is in selecting files which are readily available in machineable form and which, at the same time, have high utility to the analysts who will participate in the operational feasibility portions of the experiment".

3. This chart (Chart 9) lists the files which have been provisionally scheduled for use in the COINS experiment. Also shown is the approximate number of records or characters in each file, and the estimated rate of growth of each file.

4. Following is a brief description of the contents of each file and, in some cases, an indication what kinds of services can be obtained from the file:

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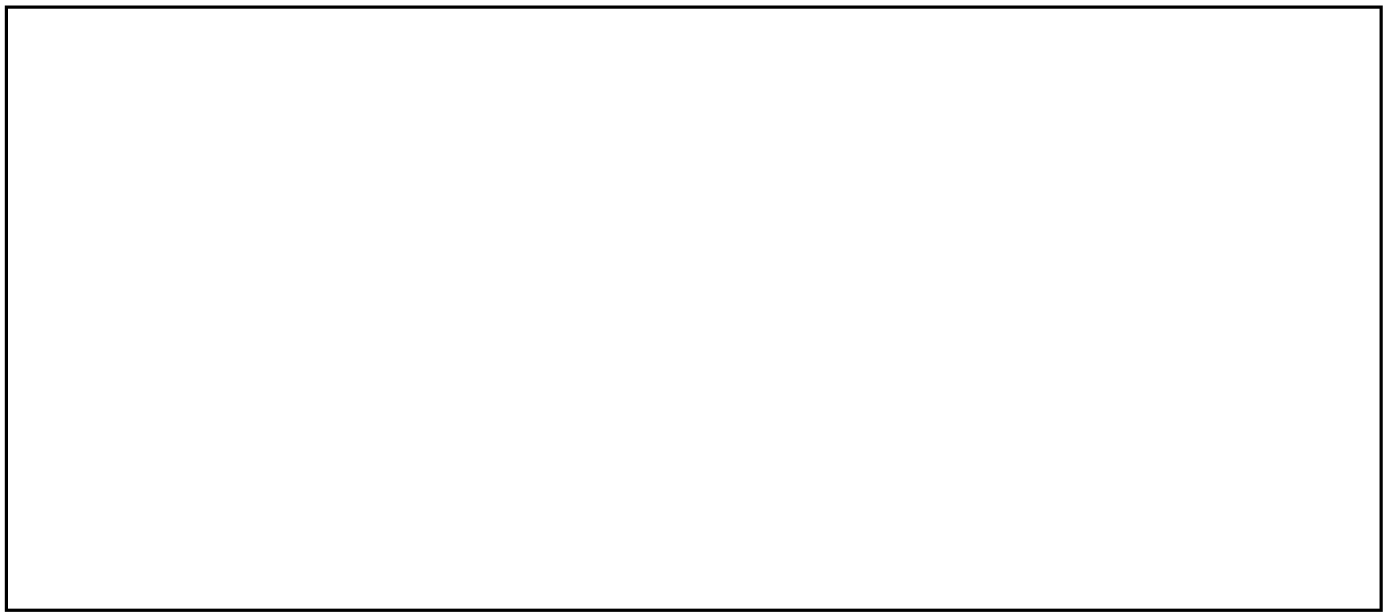
V. WHAT IS THE DIFFERENCE BETWEEN COINS I AND COINS II?

A. Introductory Note.

In a way it is rather awkward to talk about the differences between COINS I and COINS II because CODIB disengaged itself from the COINS II portion of the COINS Implementation Plan of 25 May 1966. This disengagement may have been less than complete, however, because several of the activities of the COINS Committee are of a nature that suggest the original COINS II concept is still very much alive. Using the COINS Implementation Plan as a point of reference, therefore, some of the differences between COINS I and COINS II are enumerated in the following section. (Chart 10)

B. Hardware.



25X1

C. Intelligence Files.

The COINS I files are relatively non-standard and of questionable efficiency and utility. An objective of COINS II is to have files which have greater standardization, efficiency and utility.

D. Software.

1. COINS I uses a mixture of interrogation and communications languages; COINS II will strive for common interrogation and communications languages throughout the network.

2. In COINS I all information, regardless of actual security classification, will be protected to the Top Secret SI level; COINS II will have the capability to handle multi-level security classification.

3. COINS I is limited to file-oriented interrogations; COINS II will have a subject-oriented interrogation capability which will not require the user to know anything about the file he is interrogating.

VI. WHAT ARE THE PROBLEMS IN COINS I?

A. Introductory Note.

The identification of problems in COINS I is a somewhat subjective process dependent upon the particular bias of the individual making the identification. In developing a list of problems, one can't get much assistance from reviewing the written material available on COINS because the participants, although they have complained about aspects of COINS, have not extended themselves very far in setting down their hard, substantive objections to COINS I. Accordingly, I have a list of problems which are particularly appealing to my own bias and which deal largely with policy, rather than technical, matters.

B. Management.

There has been no effective CODIB/USIB management of the COINS effort since its initiation. [redacted] COINS Committee must be acknowledged, on the basis of past performance, as the only central management influence in COINS. Except for its review of the COINS Implementation Plan and a few general briefings scattered over the last sixteen months, CODIB has not maintained management contact with the system design and development effort. CODIB, in its COINS Progress Report to USIB in September 1966, stated that there is a need for a more formal management structure--one that is empowered to exercise broader authority over the entire network and its impact on the overall functions of the community. Related to the COINS management problem is the fact that CODIB has not provided substantive guidance to the COINS effort.

25X1

C. COINS Objectives.

1. COINS technical objectives seem to be fairly well set and center mainly around the performance of the information transfer system. The picture is not so bright with respect to COINS operational objectives: approved operational objectives simply don't exist.

2. This chart (Chart 11) shows some of the evolutions through which COINS objectives have passed. The PFIAB seemed to view the objective

as an experiment in the inter-agency and inter-building exchange of intelligence information using mechanized methods, with the specific goals of being able to handle Russian biographics by summer-1966 and to exchange outputs from various sources by the summer-1967. In its very early work, the COINS Committee stated that a primary objective of COINS was solution of the problems of organizational parochialism.

3. The COINS Implementation Plan listed the following as the ultimate objectives of COINS:

a. Reduce duplication of effort by eliminating necessity for maintaining and supporting multiplicity of EDP programs and formatted files of similar content by direct inter-agency computer communications.

b. Improve the community's capability to exploit the ever-increasing volume of intelligence by improving timeliness in processing, maintenance and distribution of finished, semi-finished, and key intelligence information.

c. Provide a high degree of flexibility in managing, selecting, collating and distributing intelligence information.

d. Improve the opportunity for the effective utilization of finished, semi-finished and key intelligence information by making it readily accessible to technicians at various consumer and intelligence producing agencies in a useful time frame.

e. Establish a basis for designing and constructing a more sophisticated, dynamic intelligence network in the future.

f. Provide for more effective and efficient utilization of equipment, manpower and time.

g. Develop the security requirements and controls necessary for dynamic intelligence information exchange.

4. In its progress report to USIB, CODIB stated that it had commenced the preparation of a list of COINS objectives together with an itemized break-out of both technical and operational performance specifications.

5. In view of the questions left unanswered by the foregoing, I have looked into the work of [redacted] Biographics Panel to determine whether the work in a particular subject area of COINS might give a better insight into what COINS hopes to accomplish. This review did provide a little more information.

25X1

6. The minutes of the COINS/Soviet Personality Panel meeting of 26 September 1966 states that the PFIAB had stressed the importance of biographics and, therefore, that a major objective of COINS is to develop a long range program for handling and mechanizing, wherever practical, the Soviet biographic and personality files in the community. (Chart 12) The Panel noted that the problem is very large, very complex, and very parochial. The Panel concluded that the approach to the problem should be a detailed study of four areas (i.e., Sources, Collection, Files, and Users and Their Requirements) using a small sub-set of files in the COINS experiment. The actions to be taken in each of the four areas are shown below: (Chart 13)

a. SOURCES

Determine extent of duplication and, if excessive, develop a plan to eliminate unnecessary duplication in the future.

Determine if there are any gaps in sources of information and, if there is, develop a plan to cover it as quickly as possible.

b. COLLECTION

Study and identify the responsibilities of each agency and determine whether these responsibilities are being adequately met. If not, make recommendations to see that they are met.

Examine collection requirements and procedures for each source and indicate the amount of control that can be exercised by the community.

Develop techniques for collecting information direct from the source in machineable form for direct input to machine systems.

Eliminate unnecessary duplication in the collection and processing of information; also, eliminate cumbersome and time consuming collection techniques.

c. FILES

Files are essentially of two types--those which lend themselves to machine processing and those which do not. This study must develop procedures for adequately handling both types of files.

d. USERS AND THEIR REQUIREMENTS

Answer such questions as:

Why are these files being established and maintained?

What files need to be established, combined or discontinued?
What are the current and projected requirements for Soviet biographic information?

7. The Personality Panel stated that the results of the study of the four areas just described would enable the COINS Committee to:

a. Uncover and identify problems involved (data standards, name variants and variations, transliterations, etc.).

b. Develop and recommend a coordinated, community-wide set of proposed solutions for handling each problem area.

c. Initiate a pilot community-wide program to test the proposed solutions.

d. Develop a set of tested procedures and mechanisms for studying the entire Soviet biographic and personality problem in the intelligence community.

D. COINS Files.

1. The COINS files have been a major problem since the beginning of the effort. The big concern is that the files now nominated do not contain high-utility information which will induce the analyst to use COINS and, thereby, contribute to our overall knowledge of the real values of COINS and how to capitalize on these values in designing effective follow-on systems. The problem with the files is connected to the problem of COINS objectives. If specific operational objectives were set, then it would be possible to select or develop those files best suited to the achievement of those objectives. The files now nominated are largely a collection of what is most readily available and not what is most needed for a truly effective experiment.

2. The files problem introduces a range of other problems dealing with such matters as data element standardization, file centralization and maintenance, elimination of unnecessary duplication in the collection and input of information, and the realignment of community responsibilities for various intelligence functions. The difficulty here is determining which of these problems must be solved as a precondition to conducting the COINS I experiment, which problems should be set aside until COINS I has been completed, and which problems really don't belong within the purview of the COINS Committee.

E. COINS Evaluation.

There exist no hard, tangible plans for the operational evaluation of COINS I. Current plans (those prepared by the NSA

Operations Research Staff) cover only the technical evaluation and will probably produce a fine set of quantitative data on the performance of the information transfer system. These data by themselves, however, probably would add little to what we already suspect about COINS--that is, a network of reasonably effective communications equipment and electronics can move information from one point to another faster than the same information can be moved by existing manual methods. These same quantitative data would have to be squeezed very hard, indeed, to yield useful insights into the value of COINS as an analyst support tool.

Chart 1

CODIB REQUEST

Discussion of COINS

its status

its problems

To find out

where we are now

what it is we are implementing

To dispel existing confusion about the differences between COINS I and COINS II

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S-E-C-R-E-T

Chart 2

PFIAB RECOMMENDATION No. 2

Expand NSA TIPS project

Participation by other agencies

Experimental operating system

inter-agency
inter-building — Information handling

Extensive handling of Russian biography - summer 1966

Exchange outputs from various sources - summer 1967

Chart 3

PFIAB GUIDANCE

Experimental Operational Trials

Security Compartmentation

Encryption of Communications

Other Problems

May Have to Expand Scope of Information in TIPS

System Used for Day-to-Day Work

No Attempt to Insure That Operation of Experimental System Can Be Economically Justified

Chart 4

PFIAB PHILOSOPHY

Pervasiveness of Information Handling Methods

Importance of Great Improvements

Advantages of Machine Processing

Need Arises from Growth

Extend Experience in Cryptanalysis/Communications

Importance of Man-Machine systems

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Chart 8

COINS STATUS

ITEM	NSA	DIA	CIA	NPIC	STATE
Computer Hardware	OK	OK	OK	OK	N/A
Non-COINS Software	Not Ready	Basically OK	Design Coding	Not Ready	N/A
COINS Software	Design Coding	Design Coding	Design Coding	Not Ready	N/A
COINS Files	Not Ready	Not Ready	Not Ready	Basically Ready	N/A
Remote Terminals	OK	OK	Not Ready	Not Ready	Not Ready
Crypto and MODEM	OK	Not Ready	OK	Not Ready	Not Ready
Switch Hardware	N/A	OK	N/A	N/A	N/A
Switch Software	N/A	Design Coding	N/A	N/A	N/A
Training	Not Ready	Not Ready	Not Ready	Not Ready	Not Ready

OBJECTIVES QUESTIONABLE

EVALUATION Technical - OK OPERATIONAL - Not Ready

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Chart 11

COINS OBJECTIVES

20 October 1965

Solve the problem of organizational parochialism.

25 May 1966

Reduce duplication

Improve exploitation

Provide flixibility

Improve utilization

Establish base for future network

Provide better use of resources

Develop security controls

1 September 1966

CODIB has commenced list of COINS objectives

S-E-C-R-E-T

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Chart 12

COINS BIOGRAPHICS

A MAJOR OBJECTIVE

Develop a long range program for handling and mechanizing, wherever practical, Soviet biographic and personality files in the intelligence community.

APPROACH REQUIRES STUDY OF

Sources

Collection
- responsibilities
- techniques

Files

Users and Requirements

S-E-C-R-E-T

Chart 13

COINS COMMITTEE TO -

Identify Problems

Data Standards
Name Variants and Variations
Transliterations
etc.

Develop Coordinated Solutions

Initiate Community-wide Test

Develop Set of Tested Procedures and Mechanisms

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COINS EVALUATION

(Highlights of Briefing by [redacted] DIA) 25X1

CODIB, in its progress report to USIB in September 1966, stated the need to further consider what we are embarked on in COINS I. The subject of COINS evaluation has been discussed several times in the COINS Working Group; a COINS Evaluation Panel was established in November 1966. The Panel has met twice. The material to be discussed here is the result of two panel meetings.

There are two types of evaluation to be conducted on COINS I: the Technical Evaluation which we can see how to do, and the Operational Evaluation which we don't yet know how to perform.

The approach to evaluation is as follows:

a. Evaluation of the Transmission System. Here, we will evaluate the actual performance of the information transfer system to determine how it operated. We will compare this performance with alternative methods of transmitting information (e.g., courier, tape exchange). Papers dealing with these two aspects of evaluation of the transmission system are now in draft form.

b. Utilization and Acceptance. The effort here will be to determine who is using the system and to get a general measure of its acceptance by the user. A paper on this problem is under development.

c. Utility. The problem here is to determine how useful COINS is in solving real intelligence problems. We feel we ought to pick a set of problems and then decide whether COINS can be used to solve them. The problems selected should be time-dependent, i.e., ones in which it makes some difference how fast we transfer information.

In the evaluation of COINS utility (operational evaluation), we have looked at the current content of the COINS files. The biographic and airfield files offer some promise but neither of these areas is in the high time-dependency category. We are looking into some new problem areas in an attempt to select areas for applying COINS I. These areas include: 25X1

[redacted]

25X1

The Evaluation Panel will come to CODIB with its identification of a set of alternative problems for consideration.